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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,604	12/11/2003	Xing Ping Lin	TRW(TE)6855	7862
7590 06/30/2005			EXAMINER	
TAROLLI, SUNDHEIM, COVELL & TUMMINO L.L.P.			ALLEN, ANDRE J	
SUITE 1111			ART UNIT	
526 SUPERIOR AVENUE			PAPER NUMBER	
CLEVELAND, OH 44114-1400			2855	

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

A J

## Office Action Summary

Application No.

10/733,604

Applicant(s)

LIN, XING PING

Examiner

Andre J. Allen

Art Unit

2855

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 8, 9, 11-14 and 17 is/are rejected.
- 7) ☒ Claim(s) 4-7, 10, 15 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                                                               |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>12-11-03</u> . | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3,8,9,12-14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Brown (US 2001/0008083).

Regarding claims 1 and 13 Brown teaches a unit 157 associated with the at least one tire 104 for sensing a parameter the at least one tire and for transmitting (abstract) a tire parameter signal indicative of the sensed parameter [0105] a tire-based a transceiver device located on the vehicle for receiving the tire parameter110 114 signal and for transmitting a relay signal tire parameter signal; a vehicle-based unit 108 indicative of the received unit mounted on the vehicle location spaced away from the transceiver device [0103], the vehicle-based unit adapted to receive both

the parameter signal and the tire an indicator relay signal [0103]; and coupled to the vehicle-based indication the sensed unit for providing an parameter of the at least one tire, the vehicle-based unit controlling the indicator 162 in response to receiving at least one of the tire parameter signal and the relay signal.

Regarding claims 2,8,14 and 17 Brown teaches wherein the tire-based unit transmits the tire parameter signal at a first predetermined frequency and wherein the transceiver device transmits the relay signal at a second, different predetermined frequency [0071].

Regarding claim 3 Brown teaches the transceiver device includes first circuitry for demodulating u13 the received tire parameter signal predetermined frequency and outputting a message packet having information indicating the sensed parameter having of the at least one tire, the transceiver device also including second circuitry for receiving the message packet from the first circuitry and for modulating the message packet onto the relay signal having the second predetermined frequency [0120].

Regarding claim 9 Brown et al teaches the transceiver device includes a power supply for providing electrical energy to the transceiver device [0106].

Regarding claim 12 Brown et al teaches the vehicle includes at least one front tire that is located near a front of the vehicle and at least one rear tire that is located near the vehicle, the rear of vehicle-based unit being mounted to the vehicle near the at least one front tire and the transceiver device being mounted to the vehicle near the at least one rear tire (fig. 1).

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 2855

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brown (US 2001/0008083) in view of Ripley et al (US 4723445).

Regarding claim 11 Brown does not teach a vehicle motion sensor for connecting the power supply to the transceiver device when the vehicle is in motion and for disconnecting the power supply from the vehicle is stationary. Ripley et al teaches a motion sensor 35. It would have been obvious to a person having ordinary skill in the art of tire monitoring devices at the time the invention was made to modify the device taught by Brown with a motion detector as taught by Ripley et al for the purpose of controlling the monitoring device as a function of rotation (Ripley et al col. 4 lines 30-35).

***Allowable Subject Matter***

3. Claims 4-7, 10, 15 and 16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent

form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: The cited prior art does not disclose nor suggest a mixer for mixing the received tire parameter signal having the first predetermined frequency with the reference signal, a time delay spaces the relay signal in time relative to the tire parameter signal, a switch for connecting one of the batteries to the transceiver device, a control device being responsive to diminished power from the connected battery for disconnecting the connected battery and connecting another one of the plurality of batteries to the transceiver.

### ***Conclusion***

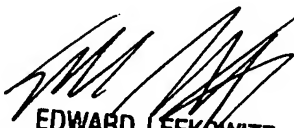
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andre J. Allen whose telephone number is 571-272-2174. The examiner can normally be reached on mon-fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Lefkowitz can be reached on 571-272-2180. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2855

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andre Allen  
Patent Examiner  
Art Unit 2855



EDWARD LEFKOWITZ  
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